

User Intentions to Use ChatGPT for Self-Diagnosis and Health-Related Purposes: Cross-sectional Survey Study

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Abstract

Background With the rapid advancement of artificial intelligence (AI) technologies, AI-powered chatbots, such as Chat Generative Pretrained Transformer (ChatGPT), have emerged as potential tools for various applications, including health care. However, ChatGPT is not specifically designed for health care purposes, and its use for self-diagnosis raises concerns regarding its adoption's potential risks and benefits. Users are increasingly inclined to use ChatGPT for self-diagnosis, necessitating a deeper understanding of the factors driving this trend.

Objective This study aims to investigate the factors influencing users' perception of decision-making processes and intentions to use ChatGPT for self-diagnosis and to explore the implications of these findings for the safe and effective integration of AI chatbots in health care.

Methods A cross-sectional survey design was used, and data were collected from 607 participants. The relationships between performance expectancy, risk-reward appraisal, decision-making, and intention to use ChatGPT for self-diagnosis were analyzed using partial least squares structural equation modeling (PLS-SEM).

Results Most respondents were willing to use ChatGPT for self-diagnosis ($n=476$, 78.4%). The model demonstrated satisfactory explanatory power, accounting for 52.4% of the variance in decision-making and 38.1% in the intent to use ChatGPT for self-diagnosis. The results supported all 3 hypotheses: The higher performance expectancy of ChatGPT ($\beta=.547$, 95% CI 0.474-0.620) and positive risk-reward appraisals ($\beta=.245$, 95% CI 0.161-0.325) were positively associated with the improved perception of decision-making outcomes among users, and enhanced perception of decision-making processes involving ChatGPT positively impacted users' intentions to use the technology for self-diagnosis ($\beta=.565$, 95% CI 0.498-0.628).

Conclusions Our research investigated factors influencing users' intentions to use ChatGPT for self-diagnosis and health-related purposes. Even though the technology is not specifically designed for health care, people are inclined to use ChatGPT in health care contexts. Instead of solely focusing on discouraging its use for health care purposes, we advocate for improving the technology and adapting it for suitable health care applications. Our study highlights the importance of collaboration among AI developers, health care providers, and policy makers in ensuring AI chatbots' safe and responsible use in health care. By understanding users' expectations and decision-making processes, we can develop AI chatbots, such as ChatGPT, that are tailored to human needs, providing reliable and verified health information sources. This approach not only enhances health care accessibility but also improves health literacy and awareness. As the field of AI chatbots in health care continues to evolve, future research should explore the long-term effects of using AI chatbots for self-diagnosis and investigate their potential integration with other digital health interventions to optimize patient care and outcomes. In doing so, we can ensure that AI chatbots, including ChatGPT, are designed and implemented to safeguard users' well-being and support positive health outcomes in health care settings.